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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/731,171	12/08/2003	Rajesh S. Madukkarumukumana	42P17844	5069

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EXAMINER
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MISIURA, BRIAN THOMAS

ART UNIT	PAPER NUMBER
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2112

DATE MAILED: 06/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/731,171

Applicant(s)

MADUKKARUMUKUMANA ET AL.

Examiner

Brian T. Misiura

Art Unit

2112

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 4-9, 11-13, 18-22, 25, 26, 30, 32, 34, 35, 38, 39, 43, 45, 47, 48 and 52 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4-9, 11-13, 30, 32, 34, 38, 39, 45, 47, 48 and 52 is/are allowed.
- 6) ☒ Claim(s) 17, 24 and 43 is/are rejected.
- 7) ☒ Claim(s) 18-22, 25, 26 and 35 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 4/3/2006.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **Detailed Action**

#### ***Specification***

The disclosure is objected to because of the following informalities: the examiner believes regarding paragraph [0033], the following sentence should read: "Both of the processors 255 & 256 may include memory elements 252 & 253 256 to store the...". Appropriate correction is required.

#### ***Claim Objections***

Claim 35 is objected to because of the following informalities: the examiner believes the word 'and' is missing in the following sentence: "routing the interrupt to a processor running in shared mode and reported as executing the lowest priority task.". Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 17 and 24 are directed to non-statutory intangible embodiments. In view of Applicant's claiming, "machine accessible medium", the medium is not limited to tangible embodiments, instead being defined as including both tangible embodiments (e.g., [ROM, RAM, magnetic disk storage media, optical storage media, flash memory devices]) and intangible embodiments (e.g., [electrical, optical, acoustical, carrier waves, infrared signals, digital signals]). As such, the claim is not limited to statutory subject matter and is therefore non-statutory.

Per Claims 17 and 24, the examiner suggests that applicant amend the claims to read as follows: "a machine accessible *storage* medium.....". This would overcome the 101 rejection as it would limit the medium to tangible embodiments.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takagi, U.S. Patent No. 5,371,857 in view of Ellsworth et al. U.S. Patent No. 6,453,344.

Per claim 43, Takagi discloses:

- a plurality of processors (figure 1, numerals IP0, IP1, IOP) to execute a plurality of virtual machines (figure 1, numerals 8-9, column 7 lines 16-31) having virtual machine identifiers (column 1 lines 52-61, column 7 lines 16-31)

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- at least one interrupt generating device to transmit an interrupt having a virtual machine identifier (column 7 lines 16-31, figure 1, (IPO can be considered the device that generates the interrupt))
- an integrated circuit to steer interrupts to the processor utilizing, at least in part, the virtual machine interrupts (column 7 lines 16-31, figure 1, (IPO forwards the interrupt request, and a processor can be considered an integrated circuit)).

Takagi does not disclose determining whether each processor is running in shared or dedicated mode.

However, Ellsworth discloses logical processors of three different states: shared, dedicated and off-line.(figures 6-10).

It would have been obvious to one having ordinary skill in the art at the time of the applicant's claimed invention to incorporate the teaching of Ellsworth into the system of Takagi keep track of which logical processors are running in which mode, either dedicated or shared.

The modification would have been obvious because one having ordinary skill in the art would want to know the running status of each logical processor in a system to be able to understand the mode each processor is operating in.

#### ***Allowable Subject Matter***

Claims 4-9, 11-13, 30, 32, 34, 38, 39, 45, 47, 48, 52 are allowed.

Claims 18-22 and 25-26 are objected to as being dependent upon a rejected base claim. Both claims 17 and 24 are rejected under 35 U.S.C 101. Upon the resolution of claims 17 and 24, claims 18-22 and 25-26 would be allowable.

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian T. Misiura whose telephone number is (571) 272-0889. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rehana Perveen can be reached on (571)272-3676. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Brian Misiura*

6/2/2006

*[Signature]*  
REHANA PERVEEN  
SUPERVISORY PATENT EXAMINER  
6/5/06